

SEQUENCE LISTING

<110> AMYLIN PHARMACEUTICALS, INC.  
<120> NOVEL EXENDIN AGONIST COMPOUNDS  
<130> 238/086 US (030639.0043.UTL2)  
<140> 09/554,533  
<141> 1998-11-13  
<150> PCT/US98/24210  
<151> 1998-11-13  
<150> US 60/065,442  
<151> 1997-11-14  
<160> 74  
<170> FastSEQ for Windows Version 3.0

RECEIVED  
MAY 19 2003  
TECH CENTER 1600/2900

<210> 1  
<211> 39  
<212> PRT  
<213> Heloderma horridum

<220>  
<221> AMIDATION  
<222> (39)...(39)  
<223> amidated Ser (Serinamide)

<400> 1

His Ser Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro Pro Pro Ser  
35

<210> 2  
<211> 39  
<212> PRT  
<213> Heloderma suspectum

<220>  
<221> AMIDATION  
<222> (39)...(39)  
<223> amidated Ser (Serinamide)

<400> 2

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro Pro Pro Ser  
35

<210> 3  
<211> 30  
<212> PRT  
<213> Homo sapien

<220>  
<221> AMIDATION  
<222> (30)...(30)  
<223> amidated Arg (Argininamide)

<400> 3

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg  
20 25 30

<210> 4  
<211> 29  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> VARIANT  
<222> (1)...(7)  
<223> Xaa in position 1 is His, Arg or Tyr; Xaa in position 2 is Ser, Gly, Ala or Thr; Xaa in position 3 is Asp or Glu; Xaa in position 5 is Ala or Thr; Xaa in position 6 is Ala, Phe, Tyr or naphthylalanine; Xaa in position 7 is Thr or Ser;

<220>  
<221> VARIANT  
<222> (8)...(13)  
<223> Xaa in position 8 is Ala, Ser or Thr; Xaa in position 9 is Asp or Glu; Xaa in position 10 is Ala, Leu, Ile, Val, pentylglycine or Met; Xaa in position 11 is Ala or Ser; Xaa in position 12 is Ala or Lys; Xaa in position 13 is Ala or Gln;

<220>  
<221> VARIANT  
<222> (14)...(20)  
<223> Xaa in position 14 is Ala, Leu, Ile, pentylglycine, Val or Met; Xaa in position 15 is Ala or Glu; Xaa in position 16 is Ala or Glu; Xaa in position 17 is Ala or Glu; Xaa in position 19 is Ala or Val; Xaa in position 20 is Ala or Arg;

```

<220>
<221> VARIANT
<222> (21)...(24)
<223> Xaa in position 21 is Ala or Leu; Xaa in position 22 is Phe,
      Tyr or naphthylalanine; Xaa in position 23 is Ile, Val, Leu,
      pentylglycine, tert-butylglycine or Met; Xaa in position 24
      is Ala, Glu or Asp;

<220>
<221> VARIANT
<222> (25)...(28)
<223> Xaa in position 25 is Ala, Trp, Phe, Tyr or naphthylalanine;
      Xaa in position 26 is Ala or Leu; Xaa in position 27 is Ala
      or Lys; Xaa in position 28 is Ala or Asn;

<220>
<221> VARIANT
<222> (29)...(29)
<223> Xaa in position 29 is -OH; -NH2; Gly-Z2; Gly Gly-Z2; Gly Gly
      Xaa31-Z2; Gly Gly Xaa31 Ser-Z2; Gly Gly Xaa31 Ser Ser-Z2; Gly Gly
      Xaa31 Ser Ser Gly-Z2; Gly Gly Xaa31 Ser Ser Gly Ala-Z2; Gly Gly
      Xaa31 Ser Ser Gly Ala Xaa36-Z2;

<220>
<221> VARIANT
<222> (29)...(29)
<223> Gly Gly Xaa31 Ser Ser Gly Ala Xaa36 Xaa37-Z2; or Gly Gly Xaa31
      Ser Ser Gly Ala Xaa36 Xaa37 Xaa38-Z2;

<220>
<221> VARIANT
<222> (29)...(29)
<223> where Xaa31, Xaa36, Xaa37, and Xaa38 are independently Pro,
      homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine,
      N-alkylpentylglycine or N-alkylalanine; and Z2 is -OH or -NH2;

<220>
<221> VARIANT
<222> (3)...(28)
<223> provided that no more than three of Xaa in positions 3, 5, 6,
      8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 24, 25, 26,
      27 and 28 are Ala.

<400> 4

Xaa Xaa Xaa Gly Xaa Xaa
  1           5           10          15

Xaa Ala Xaa Xaa
  20          25

<210> 5
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

```

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (30)...(30)

<223> amidated Gly (Glycinamide)

<400> 5

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly  
20 25 30

<210> 6

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 6

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn  
20 25

<210> 7

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 7

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 8  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 8

His Ala Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 9  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 9

His Gly Glu Gly Ala Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 10  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 10

His Gly Glu Gly Thr Ala Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 11  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 11

His Gly Glu Gly Thr Phe Thr Ala Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 12  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 12

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 13  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 13

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ala Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 14  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 14

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Ala Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 15  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 15

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Ala Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 16

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 16

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Ala Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 17

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 17

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Ala Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 18

<211> 28

<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 18

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Ala  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 19  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 19

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Ala Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 20  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 20

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Ala Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 21  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 21

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Ala Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 22  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 22

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Ala Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 23  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 23

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Ala Phe Leu Lys Asn  
20 25

<210> 24  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 24

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Ala Leu Lys Asn  
20 25

<210> 25  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 25

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Ala Lys Asn  
20 25

<210> 26  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound  
  
<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)  
  
<400> 26

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Ala Asn  
20 25

<210> 27  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound  
  
<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Ala (Alaninamide)

<400> 27

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Ala  
20 25

<210> 28  
<211> 38  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (38)...(38)  
<223> amidated Pro (Prolinamide)

<400> 28

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro Pro Pro  
35

<210> 29  
<211> 38  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (38)...(38)  
<223> amidated Pro (Prolinamide)

<400> 29

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro Pro Pro  
35

<210> 30  
<211> 37  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (37)...(37)  
<223> amidated Pro (Prolinamide)

<400> 30

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro Pro  
35

<210> 31

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (37)...(37)

<223> amidated Pro (Prolinamide)

<400> 31

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro Pro  
35

<210> 32

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (36)...(36)

<223> amidated Pro (Prolinamide)

<400> 32

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro  
35

<210> 33  
<211> 36  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence intended to act on  
exendin agonist

<220>  
<221> AMIDATION  
<222> (36)...(36)  
<223> amidated Pro (Prolinamide)

<400> 33

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala Pro  
35

<210> 34  
<211> 35  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist  
compound

<220>  
<221> AMIDATION  
<222> (35)...(35)  
<223> amidated Ala (Alaninamide)

<400> 34

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala  
35

<210> 35  
<211> 35  
<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (35)...(35)

<223> amidated Ala (Alaninamide)

<400> 35

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala

35

<210> 36

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (34)...(34)

<223> Amidated Gly (Glycinamide)

<400> 36

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly

<210> 37

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (34)...(34)  
<223> amidated Gly (Glycinamide)

<400> 37

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly

<210> 38  
<211> 33  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (33)...(33)  
<223> amidated Ser (Serinamide)

<400> 38

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser

<210> 39  
<211> 33  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (33)...(33)  
<223> amidated Ser (Seinamide)

<400> 39

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser

20

25

30

Ser

&lt;210&gt; 40

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; artificially synthesized sequence of novel exendin agonist compound

&lt;220&gt;

&lt;221&gt; AMIDATION

&lt;222&gt; (32)...(32)

&lt;223&gt; amidated Ser (Serinamide)

&lt;400&gt; 40

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1					5					10					15

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
						20			25						30

&lt;210&gt; 41

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; artificially synthesized sequence of novel exendin agonist compound

&lt;220&gt;

&lt;221&gt; AMIDATION

&lt;222&gt; (32)...(32)

&lt;223&gt; amidated Ser (Serinamide)

&lt;400&gt; 41

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1						5				10					15

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly	Gly	Pro	Ser
						20			25						30

&lt;210&gt; 42

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (31)...(31)  
<223> amidated Pro (Prolinamide)

<400> 42

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro  
20 25 30

<210> 43  
<211> 31  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (31)...(31)  
<223> amidated Pro (Prolinamide)

<400> 43

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro  
20 25 30

<210> 44  
<211> 30  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (30)...(30)  
<223> amidated Gly (Glycinamide)

<400> 44

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly  
20 25 30

<210> 45  
 <211> 29  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>  
 <221> AMIDATION  
 <222> (29)...(29)  
 <223> amidated Gly (Glycinamide)

<400> 45

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1														10	15
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly			
													20	25	

<210> 46  
 <211> 29  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>  
 <221> AMIDATION  
 <222> (29)...(29)  
 <223> amidated Gly (Glycinamide)

<400> 46

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Leu	Glu	Glu
1														10	15
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Phe	Leu	Lys	Asn	Gly			
													20	25	

<210> 47  
 <211> 38  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>  
 <223> Xaa in positions 31, 36, 37 and 38 stands for thioproline.

```

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated tPro (Thioprolinamide)

<400> 47

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa
35

<210> 48
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist
      compound

<220>
<223> Xaa in positions 36, 37 and 38 stands for thioproline.

<220>
<221> AMIDATION
<222> (38)...(38)
<223> amidated tPro (Thioprolinamide)

<400> 48

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Xaa Xaa Xaa
35

<210> 49
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> artificially synthesized sequence of novel exendin agonist
      compound

<220>
<223> Ala in position 31 is N-methyl ala.

```

<220>  
 <221> AMIDATION  
 <222> (37)...(37)  
 <223> amidated Pro (Prolinamide)

<400> 49

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Ala Ser  
 20 25 30

Ser Gly Ala Pro Pro  
 35

<210> 50  
 <211> 37  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>  
 <223> Ala in positions 31, 36 and 37 is N-methyl ala.

<220>  
 <221> AMIDATION  
 <222> (37)...(37)  
 <223> amidated N-methyl ala (N-methyl alaninamide)

<400> 50

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10				15		

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Ala Ser  
 20 25 30

Ser Gly Ala Ala Ala  
 35

<210> 51  
 <211> 37  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> artificially synthesized sequence of novel exendin agonist compound

<220>  
 <223> Xaa in positions 31, 36 and 37 stands for homoproline.

<220>

<221> AMIDATION  
<222> (37)...(37)  
<223> amidated hPro (Homoprolinamide)

<400> 51

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser  
20 25 30

Ser Gly Ala Xaa Xaa  
35

<210> 52  
<211> 36  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<223> Xaa in positions 31 and 36 stands for homoproline.

<220>  
<221> AMIDATION  
<222> (36)...(36)  
<223> amidated hPro (Homoprolinamide)

<400> 52

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Xaa Ser  
20 25 30

Ser Gly Ala Xaa  
35

<210> 53  
<211> 35  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (35)...(35)  
<223> amidated Ala (Alaninamide)

<400> 53

Arg Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser Gly Ala  
35

<210> 54

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (30)...(30)

<223> amidated Gly (Glycinamide)

<400> 54

His Gly Asp Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly  
20 25 30

<210> 55

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Xaa in position 6 stands for naphthylalanine.

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 55

His Gly Glu Gly Thr Xaa Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 56  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 56

His	Gly	Glu	Gly	Thr	Phe	Ser	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn				
				20					25						

<210> 57  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 57

His	Gly	Glu	Gly	Thr	Phe	Ser	Thr	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10				15		
Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn				
				20					25						

<210> 58  
<211> 28  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 58

His Gly Glu Gly Thr Phe Thr Ser Glu Leu Ser Lys Gln Met Ala Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn  
20 25

<210> 59

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Xaa in position 10 stands for pentylglycine.

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 59

His Gly Glu Gly Thr Phe Thr Ser Asp Xaa Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 60

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Xaa in position 22 stands for naphthylalanine.

<220>

<221> AMIDATION

<222> (28)...(28)

<223> amidated Asn (Asparaginamide)

<400> 60

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Xaa Ile Glu Phe Leu Lys Asn  
20 25

<210> 61  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<223> Xaa in position 23 stands for tert-butylglycine.

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 61

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Xaa Glu Trp Leu Lys Asn  
20 25

<210> 62  
<211> 28  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<221> AMIDATION  
<222> (28)...(28)  
<223> amidated Asn (Asparaginamide)

<400> 62

His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Asp Phe Leu Lys Asn  
20 25

<210> 63  
<211> 33  
<212> PRT  
<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (33)...(33)

<223> amidated Ser (Serinamide)

<400> 63

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Leu Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly Pro Ser  
20 25 30

Ser

<210> 64

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<221> AMIDATION

<222> (29)...(29)

<223> amidated Gly (Glycinamide)

<400> 64

His Gly Glu Gly Thr Phe Thr Ser Asp Ala Ser Lys Gln Met Glu Glu  
1 5 10 15

Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly  
20 25

<210> 65

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Xaa in positions 31, 36 and 37 stand for homoproline.

<220>

<221> AMIDATION

<222> (37)...(37)

<223> amidated hPro (homoprolinamide)

&lt;400&gt; 65

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Ala	Ser	Lys	Gln	Met	Glu	Glu
1															15

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Xaa	Ser
															30

Ser	Gly	Ala	Xaa	Xaa
				35

&lt;210&gt; 66

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; artificially synthesized sequence of novel exendin agonist compound

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(6)

&lt;223&gt; Xaa in position 1 is His, Arg, Tyr or 4-imidazopropionyl; Xaa in position 2 is Ser, Gly, Ala or Thr; Xaa in position 3 is Asp or Glu; Xaa in position 5 is Ala or Thr; Xaa in position 6 is Ala, Phe, Tyr or naphthylalanine;

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (7)...(12)

&lt;223&gt; Xaa in position 7 is Thr or Ser; Xaa in position 8 is Ala, Ser or Thr; Xaa in position 9 is Asp or Glu; Xaa in position 10 Ala, Leu, Ile, Val, pentylglycine or Met; Xaa in position 11 is Ala or Ser; Xaa in position 12 is Ala or Lys;

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (13)...(19)

&lt;223&gt; Xaa in position 13 is Ala or Gln; Xaa in position 14 is Ala, Leu, Ile, pentylglycine, Val or Met; Xaa in position 15 is Ala or Glu; Xaa in position 16 is Ala or Glu; Xaa in position 17 is Ala or Glu; Xaa in position 19 is Ala or Val;

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (20)...(22)

<223> Xaa in position 20 is Ala or Arg; Xaa in position 21 is Ala, Leu or Lys-NH<sup>f</sup>-R where R is Lys, Arg, C<sub>1</sub>-C<sub>10</sub> straight chain or branched alkanoyl or cycloalkylalkanoyl; Xaa in position 22 is Phe, Tyr or naphthylalanine;

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (23)...(26)

&lt;223&gt; Xaa in position 23 is Ile, Val, Leu, pentylglycine, tert-butylglycine or Met; Xaa in position 24 is Ala, Glu or Asp; Xaa in position 25 is Ala, Trp, Phe, Tyr or naphthylalanine;

Xaa in position 26 is Ala or Leu;

<220>

<221> VARIANT

<222> (27)...(27)

<223> Xaa in position 27 is Lys Asn, Asn Lys, Lys-NH<sup>f</sup>-R Asn, Asn Lys-NH<sup>f</sup>-R, Lys-NH<sup>f</sup>-R Ala, Ala Lys-NH<sup>f</sup>-R where R is Lys, Arg, C<sub>1</sub>-C<sub>10</sub> straight chain or branched alkanoyl or cycloalkyl- alkanoyl;

<220>

<221> VARIANT

<222> (28)...(28)

<223> Xaa in position 28 is -OH; -NH<sub>2</sub>; Gly-Z<sub>2</sub>; Gly Gly-Z<sub>2</sub>; Gly Gly Xaa<sub>31</sub>-Z<sub>2</sub>; Gly Gly Xaa<sub>31</sub> Ser-Z<sub>2</sub>; Gly Gly Xaa<sub>31</sub> Ser Ser-Z<sub>2</sub>; Gly Gly Xaa<sub>31</sub> Ser Ser Gly-Z<sub>2</sub>; Gly Gly Xaa<sub>31</sub> Ser Ser Gly Ala-Z<sub>2</sub>; Gly Gly Xaa<sub>31</sub> Ser Ser Gly Ala Xaa<sub>36</sub>-Z<sub>2</sub>;

<220>

<221> VARIANT

<222> (28)...(28)

<223> Xaa in position 28 is Gly Gly Xaa<sub>31</sub> Ser Ser Gly Ala Xaa<sub>36</sub> Xaa<sub>37</sub>-Z<sub>2</sub>; or Gly Gly Xaa<sub>31</sub> Ser Ser Gly Ala Xaa<sub>36</sub> Xaa<sub>37</sub> Xaa<sub>38</sub>-Z<sub>2</sub>;

<220>

<221> VARIANT

<222> (28)...(28)

<223> where Xaa<sub>31</sub>, Xaa<sub>36</sub>, Xaa<sub>37</sub> and Xaa<sub>38</sub> are independently selected from the group consisting of Pro, homoproline, 3Hyp, 4Hyp, thioproline, N-alkylglycine, N-alkylpentylglycine or N-alkylalanine; and Z<sub>2</sub> is -OH or -NH<sub>2</sub>;

<220>

<221> VARIANT

<222> (3)...(26)

<223> provided that no more than three of Xaa in positions 3, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 24 25 and 26 are Ala.

<400> 66

Xaa	Xaa	Xaa	Gly	Xaa									
1				5			10				15		

Xaa	Ala	Xaa									
		20				25					

<210> 67

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
Lys in position 26 is Lys-NH<sup>f</sup>octanoyl.

<220>

<221> AMIDATION

<222> (27)...(27)

<223> amidated Asn (Asparaginamide)

<400> 67

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu  
1 5 10 15

Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn  
20 25

<210> 68

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist  
compound

<220>

<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
Lys in position 26 is Lys-NH<sup>f</sup>octanoyl.

<220>

<221> AMIDATION

<222> (27)...(27)

<223> amidated Asn (Asparaginamide)

<400> 68

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu  
1 5 10 15

Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn  
20 25

<210> 69

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist  
compound

<220>

<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
Lys in position 26 is Lys-NH<sup>f</sup>octanoyl.

<220>

<221> AMIDATION

<222> (29)...(29)  
<223> amidated Gly (Glycinamide)

<400> 69

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu  
1 5 10 15

Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly  
20 25

<210> 70  
<211> 29  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
Lys in position 26 is Lys-NH<sup>o</sup>ctanoyl.

<220>  
<221> AMIDATION  
<222> (29)...(29)  
<223> amidated Gly (Glycinamide)

<400> 70

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu  
1 5 10 15

Ala Val Arg Leu Phe Ile Glu Phe Leu Lys Asn Gly Gly  
20 25

<210> 71  
<211> 27  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
Lys in position 27 is Lys-NH<sup>o</sup>ctanoyl.

<220>  
<221> AMIDATION  
<222> (27)...(27)  
<223> amidated Lys (Lysinamide)

<400> 71

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu  
 1               5               10               15

Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys  
 20               25

<210> 72

<211> 27

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
 Lys in position 27 is Lys-NH<sup>o</sup>ctanoyl.

<220>

<221> AMIDATION

<222> (27)...(27)

<223> amidated Lys (Lysinamide)

<400> 72

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu  
 1               5               10               15

Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys  
 20               25

<210> 73

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> artificially synthesized sequence of novel exendin agonist compound

<220>

<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
 Lys in position 27 is Lys-NH<sup>o</sup>ctanoyl.

<220>

<221> AMIDATION

<222> (29)...(29)

<223> amidated Gly (Gylcinamide)

<400> 73

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu Glu  
 1               5               10               15

Ala Val Arg Leu Phe Ile Glu Trp Leu Asn Lys Gly Gly  
 20               25

<210> 74  
<211> 29  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> artificially synthesized sequence of novel exendin agonist compound

<220>  
<223> Gly in position 1 is 4-imidazolylpropionyl-Gly.  
Lys in position 27 is Lys-NH<sup>o</sup>ctanoyl.

<220>  
<221> AMIDATION  
<222> (29)...(29)  
<223> amidated Gly (Glycinamide)

<400> 74

Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Leu Glu Glu Glu  
1 5 10 15

Ala Val Arg Leu Phe Ile Glu Phe Leu Asn Lys Gly Gly  
20 25